Pedal Brief.

EDITION 1 · OCTOBER 2026

FREE PRINTABLE PACK

Indoor Season Pack

Power zones, heart-rate zones, training load and trainer setup, on paper. Fill in your own numbers.

YOUR NUMBERS

FTP	Weight	FTP per kilo
_____ W	_____ kg	_____ W/kg
Threshold HR (LTHR)	**Max HR**	**Tested on**
_____ bpm	_____ bpm	_____ date

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Coggan's seven levels, FTP from a test, zones in watts by FTP

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Friel, Coggan, Polar and Garmin, side by side

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Every link and the date it was checked

Every number in this pack comes from a page on pedalbrief.com and the source that page cites, listed with its check date on page 8. Nothing here is a training plan or medical advice.

Free. The newest version is always at **pedalbrief.com/tools/indoor-season-pack**. Written with AI assistance, edited by a human.

01

Power zones

Andrew Coggan's seven levels as published by TrainingPeaks, the same zones as our FTP calculator.

20-MINUTE TEST

Average power _____ W × 0.95 = FTP _____ W

95% of your 20-minute average (TrainingPeaks)

RAMP TEST

Best 1-minute power _____ W × 0.75 = FTP _____ W

75% of your best 1-minute power (TrainerRoad, Zwift)

ZONE	LEVEL	% OF FTP	YOUR WATTS
Z1	**Active Recovery**	<55%	_____ – _____ W
Z2	**Endurance**	56–75%	_____ – _____ W
Z3	**Tempo**	76–90%	_____ – _____ W
Z4	**Lactate Threshold**	91–105%	_____ – _____ W
Z5	**VO2 Max**	106–120%	_____ – _____ W
Z6	**Anaerobic Capacity**	>121%	_____ W and up
Z7	**Neuromuscular Power**	Max efforts	Max

The published bands leave 1% gaps (55/56, 75/76 …). In watts each zone ends at the upper % of FTP, rounded, and the next one starts 1 W higher, so every whole watt falls in exactly one zone. Zone 7 has no % band in Coggan's table.

Zones in watts by FTP

FTP	Z1	Z2	Z3	Z4	Z5	Z6
150 W	0–83	84–113	114–135	136–158	159–180	181+
175 W	0–96	97–131	132–158	159–184	185–210	211+
200 W	0–110	111–150	151–180	181–210	211–240	241+
225 W	0–124	125–169	170–203	204–236	237–270	271+
250 W	0–138	139–188	189–225	226–263	264–300	301+
275 W	0–151	152–206	207–248	249–289	290–330	331+
300 W	0–165	166–225	226–270	271–315	316–360	361+
325 W	0–179	180–244	245–293	294–341	342–390	391+
350 W	0–193	194–263	264–315	316–368	369–420	421+
375 W	0–206	207–281	282–338	339–394	395–450	451+
400 W	0–220	221–300	301–360	361–420	421–480	481+

Worked out with the same rounding as the FTP calculator. For your exact FTP, use the calculator or the power zones card.

02

Heart-rate zones

Four published systems, each as its publisher states it, never merged. Pick one and fill in your bpm.

THRESHOLD HR (LTHR)

_____ bpm

Average HR for the last 20 minutes of a solo, all-out 30-minute time trial (Joe Friel).

MAX HR

_____ bpm

Measured, or estimated from age.

MAX HR FROM AGE

208 − 0.7 × _____ = _____ bpm

208 − 0.7 × age (Tanaka et al., 2001)

Joe Friel

% OF LTHR

Cycling, 7 zones

ZONE	BAND	YOUR BPM
Z1	<81%	____ – ____
Z2	81–89%	____ – ____
Z3	90–93%	____ – ____
Z4	94–99%	____ – ____
Z5a	100–102%	____ – ____
Z5b	103–106%	____ – ____
Z5c	>106%	____ – ____

Andrew Coggan

% OF LTHR

HR guide to the power levels

ZONE	NAME	BAND	YOUR BPM
Z1	Active Recovery	<68%	____ – ____
Z2	Endurance	69–83%	____ – ____
Z3	Tempo	84–94%	____ – ____
Z4	Lactate Threshold	95–105%	____ – ____
Z5	VO2 Max	>106%	____ – ____

Levels 6 and 7 have no heart-rate band (N/A in Coggan's table).

Polar

% OF MAX HR

Default 5 zones

ZONE	NAME	BAND	YOUR BPM
Z1	Very Light	50–60%	____ – ____
Z2	Light	60–70%	____ – ____
Z3	Moderate	70–80%	____ – ____
Z4	Hard	80–90%	____ – ____
Z5	Maximum	90–100%	____ – ____

Garmin

% OF MAX HR

Default 5 zones

ZONE	NAME	BAND	YOUR BPM
Z1	Warm-up	50–60%	____ – ____
Z2	Easy	60–70%	____ – ____
Z3	Aerobic	70–80%	____ – ____
Z4	Threshold	80–90%	____ – ____
Z5	Maximum	90–100%	____ – ____

Estimates and starting points, not a lab test. A zone starts at the first whole bpm at or above its published %; gaps between bands go to the zone below. The heart-rate zone calculator does the maths for every system at once.

03

TSS and Intensity Factor

Training Stress Score for one ride from your FTP, ride time and Normalized Power, with Coggan's reference ranges.

INTENSITY FACTOR

IF = NP ÷ FTP

TRAINING STRESS SCORE

TSS = (seconds × NP × IF) ÷ (FTP × 3600) × 100

ANCHOR

1 hour at FTP = 100

Typical IF values

Less than 0.75	Recovery rides
0.75–0.85	Endurance-paced training rides
0.85–0.95	Tempo rides, aerobic and anaerobic interval workouts (work and rest periods combined), longer (>2.5 h) road races
0.95–1.05	Lactate threshold intervals (work period only), shorter (<2.5 h) road races, criteriums, circuit races, longer (e.g., 40 km) TTs
1.05–1.15	Shorter (e.g., 15 km) TTs, track points race
Greater than 1.15	Prologue TT, track pursuit, track miss-and-out

TSS, approximate guide

Less than 150	**Low**: recovery generally complete by following day
150–300	**Medium**: some residual fatigue may be present the next day, but gone by 2nd day
300–450	**High**: some residual fatigue may be present even after 2 days
Greater than 450	**Very high**: residual fatigue lasting several days likely

Joe Friel (TrainingPeaks): “Since FTP is by definition 100 TSS for one hour, a 100 TSS workout cannot last longer than one hour.” Normalized Power needs your second-by-second power file, so take it from your head unit or app.

Ride log

DATE	SESSION	TIME	FTP W	NP W	IF	TSS

Training Stress Score®, Normalized Power® and Intensity Factor® carry the ® mark on TrainingPeaks’ pages; Pedal Brief isn’t affiliated with TrainingPeaks. Work it out for any ride with the TSS calculator.

04

Smart trainer setup checklist

Sixteen checks for a direct-drive trainer, each from the brands' own manuals and support pages.

01 DRIVETRAIN

- [ ] **Freehub body fits your cassette**
  Wahoo's stock HG 11 body takes Shimano HG and SRAM PG cassettes with 7 to 12 cogs. SRAM XDR and Campagnolo cassettes need their own freehub body.
  Source: Wahoo: Drivetrain compatibility for KICKR, CORE and MOVE · Garmin: Tacx NEO 3M owner's manual (PDF)
- [ ] **Same number of cogs as your bike**
  9 and 10-speed cassettes can need a spacer, and the brands put it in different places: Wahoo fits its 1.8 mm spacer behind the cassette; Tacx says some need an extra spacer between cassette and lockring.
  Source: Wahoo: Drivetrain compatibility for KICKR, CORE and MOVE · Wahoo: KICKR CORE quick start guide (PDF) · Garmin: Tacx NEO 3M owner's manual (PDF)
- [ ] **Lockring tight**
  Tacx gives 40 N·m for its own cassette; for any other cassette, use the cassette maker's figure.
  Source: Garmin: Tacx NEO 3M owner's manual (PDF)

02 PLACE AND POWER

- [ ] **Legs out and locked**
  Wahoo CORE 2: extend the legs and bolt the feet to 10 N·m. Tacx NEO 3M: both sides locked, every indicator window blue.
  Source: Wahoo: Set up your KICKR CORE 2 · Garmin: Tacx NEO 3M owner's manual (PDF)
- [ ] **Firm, level floor**
  Wahoo says a stable, level surface; Tacx says firm and level.
  Source: Wahoo: KICKR CORE quick start guide (PDF) · Garmin: Tacx NEO 3M owner's manual (PDF)
- [ ] **Mat or low-pile carpet**
  Tacx: a firm mat or low-pile carpet, not soft or high-pile carpet; for the NEO 3M, a mat of 181 x 92 cm or larger. Wahoo's mat is water resistant and anti-slip.
  Source: Garmin: Tacx NEO 3M owner's manual (PDF) · Wahoo: KICKR MAT
- [ ] **Wall outlet, supplied adapter only**
  Wahoo and Tacx both warn against third-party power adapters. Unplugged, a Wahoo trainer gives no resistance beyond flywheel inertia.
  Source: Wahoo: KICKR CORE 2 information and FAQ · Wahoo: Set up your KICKR CORE 2 · Garmin: Tacx NEO 3M owner's manual (PDF)

03 BIKE ON

- [ ] **Adapters for your axle**
  Quick release 130 or 135 mm, or thru axle 12 x 142 or 12 x 148 mm: each takes its own adapters (Wahoo) or end caps (Tacx).
  Source: Wahoo: Set up your KICKR CORE 2 · Garmin: Tacx NEO 3M owner's manual (PDF)
- [ ] **Smallest cog, then mount**
  Shift to the small chainring and smallest cog, take the rear wheel out and set the chain on the trainer's smallest cog. With a Zwift Cog, Wahoo says shift to a middle cog first.
  Source: Wahoo: Set up your KICKR CORE 2 · Garmin: Tacx NEO 3M owner's manual (PDF)
- [ ] **Axle tight before you pedal**
  Thru axle to the torque on the axle or in your bike's manual. Quick release: lever closed, handle on the non-drive side (Wahoo).
  Source: Wahoo: Set up your KICKR CORE 2 · Garmin: Tacx NEO 3M owner's manual (PDF)

04 CONNECT

- [ ] **Firmware updated**
  In the brand's own app. Wahoo says every new KICKR needs an update to work with apps like Zwift. Tacx: don't unplug mid-update.

Wahoo	Wahoo app; on Wi-Fi it updates itself overnight
Tacx	Tacx Training app: Settings, Device Manager, Firmware Update
Zwift Hub	Zwift Companion app: Equipment, Zwift Hub
Elite	Upgrado app (phone or tablet)

  Source: Wahoo: Set up your KICKR CORE 2 · Wahoo: KICKR CORE quick start guide (PDF) · Garmin: Tacx NEO 3M, updating the trainer software · Zwift: Updating your Zwift Hub firmware · Elite: Firmware updates with Upgrado

- [ ] **Paired as power, resistance and cadence**
  In Zwift: the trainer as Power source, then Resistance and Cadence. Virtual shifting needs Bluetooth or Wi-Fi, not ANT+; ANT+ needs a receiver.

  Source: Zwift: Connecting your devices for cycling

- [ ] **One app at a time**
  Close other apps connected to the trainer; they can stop the one you want from finding it.

  Source: Zwift: Connecting your devices for cycling · Garmin: Tacx NEO 3M owner's manual (PDF)

- [ ] **Calibrated the way your brand says**
  The brands disagree. Zwift: most smart trainers don't need a manual in-game calibration; check the maker's documentation.

Wahoo KICKR v5+, MOVE, CORE	Calibrates itself when you coast; no regular spindown needed
Tacx NEO series	No calibration needed
Tacx FLUX	Spindown in the Tacx Training app; about monthly (Garmin FLUX FAQ)
Elite Suito, Rivo, Direto, Justo	In myE-Training after a 10-minute warm-up at 100-150 W, at least twice a month

  Source: Wahoo: Auto spindown calibration · Garmin: Calibrating power on a NEO series trainer · Garmin: Calibrating the FLUX series · Elite: Calibration with myE-Training · Zwift: Calibrating your trainer in Zwift

05 RIDE

- [ ] **Fan aimed at your chest**
  Zwift: the chest is the best place to aim it; add a second fan if one isn't enough.

  Source: Zwift: Staying cool on Zwift

- [ ] **Wiped down after**
  Tacx: wipe the trainer after every use and unplug it when you're done. Wahoo: a moist, soft cloth, no moisture dripping in, no strong cleaners.

  Source: Garmin: Tacx NEO 3M owner's manual (PDF) · Wahoo: KICKR CORE information and FAQ (care)

YOUR SETUP

Trainer	Freehub body	Cassette
Axle and adapters	Firmware updated	Calibrated
	date	date

Then find your FTP (page 2) and fill in your zones. Brand sources and check dates are on page 8; the online checklist links each one.

05

Will it fit my trainer?

The two trainer answers from our compatibility page, word for word.

01

TRAINERS

Will my cassette fit my trainer?

The cassette goes on the trainer's freehub body. If the freehub does not match your cassette, nothing else matters.

DRIVETRAIN	WHAT THE TRAINER NEEDS
Shimano 12-speed road	Fits the standard HG body most trainers ship with. You need a 12-speed cassette on it.
SRAM AXS road and XPLR (12 and 13-speed)	Needs an XDR freehub body on the trainer. Wahoo, Tacx, Elite and Zwift all list one. Some cheaper SRAM PG cassettes fit a standard body instead.
Campagnolo 13-speed (Ekar and other N3W systems)	Wahoo says it is not compatible with KICKR, CORE or MOVE. Elite's Campagnolo body excludes Ekar. Garmin has a Tacx N3W body.
Shimano Micro Spline 12-speed (MTB and some GRX)	Wahoo says no body is available. Wahoo lists workarounds.

- On SRAM, a 10t smallest cog means XDR (Elite).
- If the biggest cog on the trainer is larger than the one on your bike, "you can damage your drivetrain" (Wahoo).

SRAM 13-speed on Elite: Elite's product page says 12-speed, its compatibility PDF says 12/13 for the same part. Check with Elite if you run 13. Garmin doesn't state which cog counts the Tacx XD-R body supports.

FULL GUIDE **Smart trainer compatibility for 12 and 13-speed drivetrains** pedalbrief.com/guides/smart-trainer-drivetrain-compatibility

02

TRAINERS

Will the Zwift Cog work on my trainer?

The Zwift Cog is a single sprocket that goes on a Shimano Hyperglide freehub body, on direct-drive trainers only.

- **Freehub:** not compatible with Shimano Micro Spline, SRAM XD/XDR or Campagnolo bodies. If you moved your trainer to an XDR body for SRAM, the Cog needs a Hyperglide body back on.
- **Not on Zwift's list:** the Tacx FLUX trainers, Wahoo KICKR v5 and older, and Elite's Zumo, Drivo and Drivo II.
- **Cog size:** a 14-tooth Cog for every compatible trainer, except Elite, which gets an 18-tooth Cog.
- **Bike speeds:** Zwift, Wahoo and Garmin say 8 to 13-speed. Decathlon and JetBlack say 8 to 12-speed. On 13-speed, check with your trainer brand. Zwift excludes Campagnolo N3W 13-speed chains.
- **You don't need the Cog for virtual shifting.** Wahoo, Garmin and Elite all say the firmware and a Zwift controller are what enable it.

FULL GUIDE **Zwift Cog compatible trainers** pedalbrief.com/guides/zwift-cog-compatible-trainers

More one-glance answers (hookless rims, cleats, UDH, chain length, derailleur capacity) at pedalbrief.com/compatibility.

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